

AMENDMENTS TO THE CLAIMS

1-5. (Cancelled)

6. (Previously Presented) A motor having a magnetic bearing comprising:

a base provided with a bearing seat;

a stator fixed onto the base,

a rotor equipped with a rotation shaft and rotating relatively to the stator by magnetic forces generated from excitation;

a self-lubricating bearing fastened to the bearing seat of the base for accommodating and supporting the rotation shaft of the rotor to limit the rotation shaft along the axial direction;

an upper magnetic unit composed of a first and a second magnetic elements, wherein the first magnetic element is located above the second magnetic element to generate a magnetic force therebetween to prevent the contact with each other; and

a lower magnetic unit composed of a third and a fourth magnetic elements, wherein the third magnetic element is located above the fourth magnetic element to generate a

magnetic force therebetween to prevent the contact with each other.

7. (Previously Presented) The motor having a magnetic bearing as described in claim 6, wherein the fourth magnetic element is ring-shaped with its center hole telescopically fitted near a lower end of the rotation shaft; the third magnetic element is secured to a lower end of the bearing, and the diameter of the center hole of the third magnetic element is larger than that of the rotation shaft such that when the rotation shaft passes through the third magnetic element, the third and fourth magnetic elements do not come into contact with each other.

8. (Original) The motor having a magnetic bearing as described in claim 6, wherein the third magnetic elements is ring-shaped with its center hole telescopically fitted to the rotation shaft; the fourth magnetic element is secured onto the bearing seat, and the diameter of its center hole is larger than that of the rotation shaft such that when the rotation shaft passes through the third magnetic element, both of them do not come into contact with each other.

9. (Previously Presented) The motor having a magnetic bearing as described in claim 6, wherein the first and second magnetic elements are of the same pole and repulsive to each other, and the third and fourth magnetic elements are also of the same pole and repulsive to each other.

10. (Original) The motor having a magnetic bearing as described in claim 6, wherein the first and second magnetic elements are of opposite poles and attractive towards each other, and the third and fourth magnetic elements are also opposite poles and attractive towards each other.

11. (Previously Presented) A motor having a magnetic bearing comprising:

a base provided with a bearing seat;

a stator fixed to the base,

a rotor equipped with a rotation shaft and rotates relatively to the stator by magnetic forces generated from excitation;

a self-lubricating bearing fastened to the bearing seat of the base for accommodating and supporting the rotation shaft of the rotor to limit the rotation shaft along the axial direction;

a magnetic unit composed of a first and a second magnetic elements, wherein the second magnetic element is located below the first magnetic element to provide an axial magnetic force and compensate the magnetic bias formed between the stator and the rotor, thus obtaining constant magnetic equilibrium.

12. (Original) The motor having a magnetic bearing as described in claim 11, wherein the first magnetic element is fixed to the bearing seat and the second magnetic element is ring-shaped with its center hole telescopically fitted to the rotation shaft.

13. (Original) The motor having a magnetic bearing as described in claim 11, wherein the first magnetic element is ring-shaped with its center hole telescopically fitted to the rotation shaft; and the second magnetic element is anchored to the bearing seat, and the diameter of its center hole is larger than that of the rotation shaft such that when the rotation shaft passes through the center hole of the second magnetic element, both of them do not come into contact with each other.

14. (Original) The motor having a magnetic bearing as described in claim 11, wherein the first and second magnetic elements are of the same pole and repulsive to each other.

15. (Original) The motor having a magnetic bearing as described in claim 11, wherein the first and second magnetic elements are of opposite poles and attractive towards each other.

16. (Previously Presented) The fan assembly having a magnetic bearing as described in claim 6, wherein the rotor includes the plurality of fan blades and is limited to a balanced position in accordance with magnetically repulsive forces from the magnetic units and wind force generated by the fan blades during rotation.

17. (Previously Presented) The fan assembly having a magnetic bearing as described in claim 11, wherein the rotor includes the plurality of fan blades and is limited to a balanced position in accordance with magnetically repulsive forces from the magnetic unit and wind force generated by the fan blades during rotation.

18. (Previously Presented) The motor having a magnetic bearing as described in claim 11, wherein the magnetic unit further comprises a third magnetic element located below the second magnetic element; whereby the second magnetic element is restrained between the first and third magnetic elements, therefore limiting a shift range of the rotation shaft.

19. (Currently Amended) A fan assembly having a magnetic bearing comprising:

- a base providing with a bearing seat;

- a stator fixed to the base;

- a rotor equipped with a rotation shaft and rotating relative to the stator by magnetic forces generated from excitation;

- a set of fan blades attached to the rotor;

- a bearing fastened to the bearing seat of the base for accommodating and supporting the rotation shaft of the rotor to limit the rotation shaft along the axial direction;

- a magnetic unit composed of first and second magnetic elements, wherein the second magnetic element is located below the first magnetic element to provide an axial magnetic force and compensate the magnetic bias formed between the stator and the rotor so as to limit the rotor to a balanced

position in accordance with ~~magnetically repulsive~~ magnetic forces from the magnetic unit and wind force generated by the fan blades during rotation.

20. (Previously Presented) The fan assembly having a magnetic bearing as described in claim 19, wherein the first magnetic element is fixed to the bearing seat and the second magnetic element is ring-shaped with its center hole telescopically fitted to the rotation shaft.

21. (Previously Presented) The fan assembly having a magnetic bearing as described in claim 19, wherein the first magnetic element is ring-shaped with its center hole telescopically fitted to the rotation shaft; and the second magnetic element is anchored to the bearing seat, and the diameter of its center hole is larger than that of the rotation shaft such that when the rotation shaft passes through the center hole of the second magnetic element, the rotating shaft and the second magnetic element do not contact.

22. (Previously Presented) The fan assembly having a magnetic bearing as described in claim 19, wherein the first

and second magnetic elements are of the same pole and are repulsive to each other.

23. (Previously Presented) The fan assembly having a magnetic bearing as described in claim 19, wherein the first and second magnetic elements are of opposite poles and are attractive towards each other.

24. (Previously Presented) The fan assembly having a magnetic bearing as described in claim 19, wherein the magnetic unit further comprises a third magnetic element located below the second magnetic element; whereby the second magnetic element is restrained between the first and third magnetic element, therefore limiting a shift range of the rotation shaft.